

CLAIMS

1. A system comprising:
 - a host processor operably coupled with a broadcast-capable switch;
 - a first broadcast-packet-processing device operably coupled with the broadcast-capable switch;
 - a second broadcast-packet-processing device operably coupled with the broadcast-capable switch; and
 - at least one of the first broadcast-packet-processing device and the second broadcast-packet-processing device operably coupled with the host processor.
2. The system of Claim 1, wherein said at least one of the first broadcast-packet-processing device and the second broadcast-packet-processing device operably coupled with the host processor comprises:
 - the first broadcast-packet-processing device and the second broadcast-packet-processing device operably coupled with the host processor.
3. The system of Claim 1, wherein said at least one of the first broadcast-packet-processing device and the second broadcast-packet-processing device operably coupled with the host processor comprises:
 - the first broadcast-packet-processing device operably coupled with the host processor; and
 - the second broadcast-packet-processing device operably coupled with the first broadcast-packet-processing device.
4. The system of Claim 1, wherein said broadcast-capable switch comprises:
 - an Ethernet-capable switch.

5. The system of Claim 4, wherein said Ethernet-capable switch comprises:
a shared medium Ethernet switch.
6. The system of Claim 4, wherein said Ethernet-capable switch comprises:
a non-shared medium Ethernet switch.
7. The system of Claim 1, wherein said first broadcast-packet-processing device operably coupled with the broadcast-capable switch comprises:
an Ethernet-broadcast-packet-processing device and an Ethernet-capable switch operable coupled by a shared medium.
8. The system of Claim 1, wherein said first broadcast-packet-processing device operably coupled with the broadcast-capable switch comprises:
an Ethernet-broadcast-packet-processing device and an Ethernet-capable switch operably coupled by a non-shared medium.
9. The system of Claim 1, wherein said second broadcast-packet-processing device operably coupled with the broadcast-capable switch comprises:
an Ethernet-broadcast-packet-processing device and an Ethernet-capable switch operable coupled by a shared medium.
10. The system of Claim 1, wherein said second broadcast-packet-processing device operably coupled with the broadcast-capable switch comprises:
an Ethernet-broadcast-packet-processing device and an Ethernet-capable switch operably coupled by a non-shared medium.
11. The system of Claim 1, wherein said first broadcast-packet-processing device comprises:
an address-assignment-recognition device.

12. The system of Claim 1, wherein said second broadcast-packet-processing device comprises:
- an address-assignment-recognition device.

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13. A method comprising:

directing at least one of a first broadcast-packet-processing device and a second broadcast-packet-processing device to enter an ignore-initial-address-assignment mode;

directing the first broadcast-packet-processing device to enter a process-initial-address-assignment mode;

transmitting a broadcast packet containing payload having an address-assignment message intended for the first broadcast-packet-processing device;

directing the second broadcast-packet-processing device to enter a process-initial-address-assignment mode; and

transmitting a broadcast packet containing payload having an address-assignment message intended for the second broadcast-packet-processing device.

14. The method of Claim 13, wherein said directing a first broadcast-packet-processing device and a second broadcast-packet-processing device to enter an ignore-initial-address-assignment mode comprises:

forcing a first attend-ignore line associated with the first broadcast-packet-processing device into an ignore value; and

forcing, substantially simultaneously with said forcing the first attend-ignore line, a second attend-ignore line associated with the second broadcast-packet-processing device into an ignore value.

15. The method of Claim 13, wherein said directing a first broadcast-packet-processing device and a second broadcast-packet-processing device to enter an ignore-initial-address-assignment mode comprises:

forcing a first attend-ignore line associated with the first broadcast-packet-processing device into an ignore value; and

forcing, sequential to said forcing the first attend-ignore line, a second attend-ignore line associated with the second broadcast-packet-processing device into an ignore value.

16. The method of Claim 13, wherein said directing the first broadcast-packet-processing device to enter a process-initial-address-assignment mode comprises:

forcing a first attend-ignore line associated with the first broadcast-packet-processing device into an attend value.

17. The method of Claim 13, wherein said directing the second broadcast-packet-processing device to enter a process-initial-address-assignment mode comprises:

forcing a second attend-ignore line associated with the second broadcast-packet-processing device into an attend value.

18. The method of Claim 17, wherein said forcing a second attend-ignore line associated with the second broadcast-packet-processing device into an attend value comprises:

the first broadcast-packet-processing device forcing the second attend-ignore line associated with the second broadcast-packet-processing device into the attend value.

19. The method of Claim 13, wherein said transmitting a broadcast packet containing payload having an address-assignment message intended for the first broadcast-packet-processing device comprises:

transmitting a broadcast packet containing payload having an address-assignment message intended for the first broadcast-packet-processing device until an acknowledgment from the first broadcast-packet-processing device is received.

20. The method of Claim 13, wherein said transmitting a broadcast packet containing payload having an address-assignment message intended for the second broadcast-packet-processing device comprises:

transmitting a broadcast packet containing payload having an address-assignment message intended for the second broadcast-packet-processing device until an acknowledgment from the second broadcast-packet-processing device is received.

21. A system comprising:

- means for directing at least one of a first broadcast-packet-processing device and a second broadcast-packet-processing device to enter an ignore-initial-address-assignment mode;
- means for directing the first broadcast-packet-processing device to enter a process-initial-address-assignment mode;
- means for transmitting a broadcast packet containing payload having an address-assignment message intended for the first broadcast-packet-processing device;
- means for directing the second broadcast-packet-processing device to enter a process-initial-address-assignment mode; and
- means for transmitting a broadcast packet containing payload having an address-assignment message intended for the second broadcast-packet-processing device.

22. The system of Claim 21, wherein said means for directing a first broadcast-packet-processing device and a second broadcast-packet-processing device to enter an ignore-initial-address-assignment mode comprises:

- means for forcing a first attend-ignore line associated with the first broadcast-packet-processing device into an ignore value; and
- means for forcing, substantially simultaneously with said forcing the first attend-ignore line, a second attend-ignore line associated with the second broadcast-packet-processing device into an ignore value.

23. The system of Claim 21, wherein said means for directing a first broadcast-packet-processing device and a second broadcast-packet-processing device to enter an ignore-initial-address-assignment mode comprises:

- means for forcing a first attend-ignore line associated with the first broadcast-packet-processing device into an ignore value; and

means for forcing, sequential to said forcing the first attend-ignore line, a second attend-ignore line associated with second the broadcast-packet-processing device into an ignore value.

24. The system of Claim 21, wherein said means for directing the first broadcast-packet-processing device to enter a process-initial-address-assignment mode comprises:

means for forcing a first attend-ignore line associated with the first broadcast-packet-processing device into an attend value.

25. The system of Claim 21, wherein said means for directing the second broadcast-packet-processing device to enter a process-initial-address-assignment mode comprises:

means for forcing a second attend-ignore line associated with the second broadcast-packet-processing device into an attend value.

26. The system of Claim 25, wherein said means for forcing a second attend-ignore line associated with the second broadcast-packet-processing device into an attend value comprises:

the first broadcast-packet-processing device forcing the second attend-ignore line associated with the second broadcast-packet-processing device into the attend value.

27. The system of Claim 21, wherein said means for transmitting a broadcast packet containing payload having an address-assignment message intended for the first broadcast-packet-processing device comprises:

means for transmitting a broadcast packet containing payload having an address-assignment message intended for the first broadcast-packet-processing device until an acknowledgment from the first broadcast-packet-processing device is received.

28. The system of Claim 21, wherein said means for transmitting a broadcast packet containing payload having an address-assignment message intended for the second broadcast-packet-processing device comprises:

means for transmitting a broadcast packet containing payload having an address-assignment message intended for the second broadcast-packet-processing device until an acknowledgment from the second broadcast-packet-processing device is received.

29. A method comprising:
receiving a broadcast packet containing payload having an specific-address assignment message.

30. The method of Claim 29, wherein said receiving a broadcast packet containing payload having a specific-address assignment message comprises:
receiving a broadcast packet containing payload having an specific Media Access Control (MAC) address assignment message.

31. The method of Claim 29, wherein said receiving a broadcast packet containing payload having a specific-address assignment message comprises:
accepting an address assignment as indicated by the specific-address assignment message; and
sending an acknowledgment upon completion of said accepting the address assignment as indicated by the specific-address assignment message.

32. The method of Claim 29, wherein said receiving a broadcast packet containing payload having a specific-address assignment message comprises:
recognizing that an address assignment as indicated by the specific-address assignment message has already been achieved; and
sending an acknowledgment of the address assignment indicated by the specific-address assignment message.

33. The method of Claim 29, wherein said receiving a broadcast packet containing payload having a specific-address assignment message comprises:
determining that an address assignment different from the specific-address has previously been accepted; and
ignoring the specific-address assignment message.

34. A system comprising:

means for receiving a broadcast packet containing payload having an specific-address assignment message.

35. The system of Claim 34, wherein said means for receiving a broadcast packet containing payload having a specific-address assignment message comprises:

receiving a broadcast packet containing payload having an specific Media Access Control (MAC) address assignment message.

36. The system of Claim 34, wherein said means for receiving a broadcast packet containing payload having a specific-address assignment message comprises:

means for accepting an address assignment as indicated by the specific-address assignment message; and

means for sending an acknowledgment upon completion of said accepting the address assignment as indicated by the specific-address assignment message.

37. The system of Claim 34, wherein said means for receiving a broadcast packet containing payload having a specific-address assignment message comprises:

means for recognizing that an address assignment as indicated by the specific-address assignment message has already been achieved; and

means for sending an acknowledgment of the address assignment indicated by the specific-address assignment message.

38. The system of Claim 34, wherein said means for receiving a broadcast packet containing payload having a specific-address assignment message comprises:

means for determining that an address assignment different from the specific-address has previously been accepted; and

means for ignoring the specific-address assignment message.

39. A system comprising:
a host processor operably coupled with a packet switch;
a first multi-channel device, having a Slave Initial Boot Packet Processing Device, operably coupled with the packet switch; and
a second multi-channel device, having a Slave Initial Boot Packet Processing Device, operably coupled with the packet switch.

40. The system of Claim 39, wherein said first multi-channel device is substantially indistinguishable from said second multi-channel device.

41. The system of Claim 40, wherein said first multi-channel device is substantially indistinguishable from said second multi-channel device comprises:

said first multi-channel device having a first a boot-control code Read Only Memory; and
said second multi-channel device having a second boot-control code Read Only Memory substantially similar to the first boot-control code Read Only Memory.

42. The system of Claim 39, wherein said first multi-channel device, having a Slave Initial Boot Packet Processing Device, operably coupled with the packet switch comprises:
a first packet-processing device, having an assigned address, uniquely coupled with the first multi-channel device.

43. The system of Claim 39, wherein said second multi-channel device, having a Slave Initial Boot Packet Processing Device, operably coupled with the packet switch comprises:
a second packet-processing device having an assigned address, uniquely coupled with the first multi-channel device.

44. The system of Claim 43, wherein the second packet-processing device having an assigned address comprises:

the second packet-processing device having an assigned Media Access Control address.

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45. A method comprising:

initiating, at a host processor, transmission of a packet having an initial boot-up message.

46. The method of Claim 45, wherein said initiating, at a host processor, transmission of a packet having an initial boot-up message comprises:

transmitting the packet having the initial boot-up message.

47. The method of Claim 46, wherein said transmitting the packet having the initial boot-up message comprises:

retransmitting the packet having the initial boot-up message until acknowledgements associated with substantially all addresses in a set of assigned addresses have been received.

48. The method of Claim 47, wherein said retransmitting the packet having the initial boot-up message until acknowledgements associated with substantially all addresses in a set of assigned addresses have been received comprises:

receiving one or more acknowledgments associated with one or more addresses;

adding the one or more addresses to a set of received addresses, if the one or more addresses are not already represented in the set of received addresses; and

comparing the set of received addresses against a set of assigned addresses.

49. A system comprising:

means for initiating, at a host processor, transmission of a packet having an initial boot-up message.

50. The system of Claim 49, wherein said means for initiating, at a host processor, transmission of a packet having an initial boot-up message comprises:

means for transmitting the packet having the initial boot-up message.

51. The system of Claim 50, wherein said means for transmitting the packet having the initial boot-up message comprises:

means for retransmitting the packet having the initial boot-up message until acknowledgements associated with substantially all addresses in a set of assigned addresses have been received.

52. The system of Claim 51, wherein said means for retransmitting the packet having the initial boot-up message until acknowledgements associated with substantially all addresses in a set of assigned addresses have been received comprises:

means for receiving one or more acknowledgments associated with one or more addresses;

means for adding the one or more addresses to a set of received addresses, if the one or more addresses are not already represented in the set of received addresses; and

means for comparing the set of received addresses against a set of assigned addresses.

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53. A method comprising:

receiving a broadcast packet having an initial boot-up message.

54. The method of Claim 53, wherein said receiving a broadcast packet having an initial boot-up message comprises:

executing boot-control code; and

sending an acknowledgment upon completion of said executing the boot-control code.

55. The method of Claim 53, wherein said receiving a broadcast packet having an initial boot-up message comprises:

determining that boot-control code has previously been executed; and

sending an acknowledgment.

56. A system comprising:
receiving a broadcast packet having an initial boot-up message.

57. The system of Claim 56, wherein said means for receiving a broadcast packet having an initial boot-up message comprises:
executing boot-control code; and
sending an acknowledgment upon completion of said executing the boot-control code.

58. The system of Claim 56, wherein said means for receiving a broadcast packet having an initial boot-up message comprises:
determining that boot-control code has previously been executed; and
sending an acknowledgment.